Raw Sequence Listing Error Summary .

ERROR DETECTED	SUGGESTED CORRECTION SERIAL NUMBER: 09 849 980 A			
ATTN: NEW RULES CASE	S: PLEASE DISREGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY PTO SOFTWARE			
Wrapped Nucleics Wrapped Aminos	The number/text at the end of each line "wrapped" down to the next line. This may occur if your file was retrieved in a word processor after creating it. Please adjust your right margin to .3; this will prevent "wrapping."			
2Invalid Line Length	th The rules require that a line not exceed 72 characters in length. This includes white spaces.			
3Misaligned Amino Numbering	The numbering under each 5 th amino acid is misaligned. Do not use tab codes between numbers; use space characters, instead.			
4Non-ASCII	The submitted file was not saved in ASCII(DOS) text, as required by the Sequence Rules. Please ensure your subsequent submission is saved in ASCII text.			
5Variable Length	Sequence(s) contain n's or Xaa's representing more than one residue. Per Sequence Rules, each n or Xaa can only represent a single residue. Please present the maximum number of each residue having variable length and indicate in the <220>-<223> section that some may be missing.			
6PatentIn 2.0 "bug"	A "bug" in PatentIn version 2.0 has caused the <220>-<223> section to be missing from amino acid sequences(s) Normally, PatentIn would automatically generate this section from the previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section to the subsequent amino acid sequence. This applies to the mandatory <220>-<223> sections for Artificial or Unknown sequences.			
7Skipped Sequences (OLD RULES)	Sequence(s) missing. If intentional, please insert the following lines for each skipped sequence: (2) INFORMATION FOR SEQ ID NO:X: (insert SEQ ID NO where "X" is shown) (i) SEQUENCE CHARACTERISTICS: (Do not insert any subheadings under this heading) (xi) SEQUENCE DESCRIPTION:SEQ ID NO:X: (insert SEQ ID NO where "X" is shown) This sequence is intentionally skipped			
	Please also adjust the "(ii) NUMBER OF SEQUENCES:" response to include the skipped sequences.			
8Skipped Sequences (NEW RULES)	Sequence(s) missing. If intentional, please insert the following lines for each skipped sequence. <210> sequence id number <400> sequence id number 000			
9Use of n's or Xaa's (NEW RULES)	Use of n's and/or Xaa's have been detected in the Sequence Listing. Per 1.823 of Sequence Rules, use of <220>-<223> is MANDATORY if n's or Xaa's are present. In <220> to <223> section, please explain location of n or Xaa, and which residue n or Xaa represents.			
10Invalid <213> Response	Per 1.823 of Sequence Rules, the only valid <213> responses are: Unknown, Artificial Sequence, or scientific name (Genus/species). <220>-<223> section is required when <213> response is Unknown or is Artificial Sequence			
	Sequence(s) missing the <220> "Feature" and associated numeric identifiers and responses. Use of <220> to <223> is MANDATORY if <213> "Organism" response is "Artificial Sequence" or "Unknown." Please explain source of genetic material in <220> to <223> section. (See "Federal Register," 06/01/1998, Vol. 63, No. 104, pp. 29631-32) (Sec. 1.823 of Sequence Rules)			
"bug"	Please do not use "Copy to Disk" function of Patentln version 2.0. This causes a corrupted file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing). Instead, please use "File Manager" or any other manual means to copy file to floppy disk.			

AMC - Biotechnology Systems Branch - 06/04/2001

1

RAW SEQUENCE LISTING PATENT APPLICATION US/09/849,980A

DATE: 11/10/2001 TIME: 01:51:11

INPUT SET: S36663.raw

This Raw Listing contains the General Information Section and those Sequences containing ERRORS.

SEQUENCE LISTING

Does Not Comply
Corrected Diskette Needed
Corrected Diskette Needed

```
2
            General Information
 3
     (1)
 4
     (i) APPLICANT: SANTEN PHARMACEUTICAL CO., LTD.
 5
    (ii) TITLE OF INVENTION: Novel Polypeptide Having Water Channel
    Activity and DNA sequence
 7
     (iii) NUMBER OF SEQUENCES:
 8
     (iv) CORRESPONDENCE ADDRESS:
 9
      (A) ADDRESSEE: SANTEN PHARMACEUTICAL CO., LTD.
10
      (B) STREET: 9 19 Shimoshinjo 3-chome Higashiyodogawa-Ku
    (C) CITY: Osaka
12
13
      (D) STATE: Osaka
      (E) COUNTRY: JAPAN
14
15
      (F) ZIP: 533-0021
     (v) COMPUTER READABLE FORM:
16
     (A) MEDIUM TYPE: Diskette, 3.5 inch, 1.44 MB, storage
17
      (B) COMPUTER: IBM PS/2 or compatibles
18
      (C) OPERATING SYSTEM: WINDOWS 95/97
19
      (D) SOFTWARE: Microsoft Word 97
20
21
     (vi) CURRENT APPLICATION DATE:
22
       (A) APPLICATION NUMBER: 09/381,810
     (B) FILING DATE: 19-OCT-1999
23
24
     (C) CLASSIFICATION: 435
25
     (vii) PRIOR APPLICATION DATA
      (A) APPLICATION NUMBER: PCT/JP98/01371
26
      (B) FILING DATE: 27-MAR-1998
27
     (C) APPLICATION NUMBER: JP 09-094845
28
      (D) FILILNG DATE: 28-MAR-1997
29
30
     (viii) ATTORNEY/AGENT INFORMATION:
      (A) NAME: Burton A. Amernick
31
      (B) REGISTRATION NUMBER: 24852
32
     (C) REFERENCE/DOCKET NUMBER: 1581/00156
33
     (ix) TELECOMMUNICATION INFORMATION:
34
      (A) TELEPHONE: (202)331-7111
35
36
      (B) FAX: (202)293-6229
37
```

ERRORED SEQUENCES FOLLOW:

38 (2) INFORMATION FOR SEQ ID NO: 1:

39

RAW SEQUENCE LISTING PATENT APPLICATION US/09/849,980A

DATE: 11/10/2001 TIME: 01:51:12

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40
      (i) SEQUENCE CHARACTERISTICS:
                                           invalid:
       (A) LENGTH(F342) amino acids
 41
                                          connot use F
 42
      (B) TYPE: amino acid
43
      (D) TOPOLOGY (F) linear
     (ii) MOLECULE TYPE: F peptide
44
45
46
     (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1:
47
48
     Met Val Gln Ala Ser Gly His Arg Arg Ser Thr Arg Gly Ser Lys Met
49
50
     Val Ser Trp Ser Val Ile Ala Lys Ile Gln Glu Ile Leu Gln Arg Lys
51
     Met Val Arg Glu Phe Leu Ala Glu Phe Met Ser Thr Tyr Val Met Met
52
53
                                   40
54
     Val Phe Gly Leu Gly Ser Val Ala His Met Val Leu Asn Lys Lys Tyr
55
                               55
56
     Gly Ser Tyr Leu Gly Val Asn Leu Gly Phe Gly Phe Gly Val Thr Met
57
                          70
                                               75
58
     Gly Val His Val Ala Gly Arg Ile Ser Gly Ala His Met Asn Ala Ala
59
                      85
                                           90
60
     Val Thr Phe Ala Asn Cys Ala Leu Gly Arg Val Pro Trp Arg Lys Phe
61
                 100
                                      105
     Pro Val Tyr Val Leu Gly Gln Phe Leu Gly Ser Phe Leu Ala Ala Ala
62
63
                                  120
     Thr Ile Tyr Ser Leu Phe Tyr Thr Ala Ile Leu His Phe Ser Gly Gly
64
65
                             135
66
     Gln Leu Met Val Thr Gly Pro Val Ala Thr Ala Gly Ile Phe Ala Thr
67
                         150
                                              155
     Tyr Leu Pro Asp His Met Thr Leu Trp Arg Gly Phe Leu Asn Glu Ala
68
69
                     165
                                          170
     Trp Leu Thr Gly Met Leu Gln Leu Cys Leu Phe Ala Thr Thr Asp Gln
70
71
                 180
                                      185
72
     Glu Asn Asn Pro Ala Leu Pro Gly Thr Glu Ala Leu Val Ile Gly Ile
73
             195
                                  200
74
     Leu Val Val Ile Ile Gly Val Ser Leu Gly Met Asn Thr Gly Tyr Ala
75
                             215
     Ile Asn Pro Ser Arg Asp Leu Pro Pro Arg Ile Phe Thr Phe Ile Ala
76
77
                         230
                                              235
78
     Gly Trp Gly Lys Gln Val Phe Ser Asn Gly Glu Asn Trp Trp Trp Val
79
                     245
                                          250
     Pro Val Val Ala Pro Leu Leu Gly Ala Tyr Leu Gly Gly Ile Ile Tyr
80
81
                                     265
82
    Leu Val Phe Ile Gly Ser Thr Ile Pro Arg Glu Pro Leu Lys Leu Glu
83
                                 280
84
    Asp Ser Val Ala Tyr Glu Asp His Gly Ile Thr Val Leu Pro Lys Met
85
                             295
86
    Gly Ser His Glu Pro Thr Ile Ser Pro Leu Thr Pro Val Ser Val Ser
87
                         310
                                             315
88
    Pro Ala Asn Arg Ser Ser Val His Pro Ala Pro Pro Leu His Glu Ser
89
                                         330
90
    Met Ala Leu Glu His Phe
91
                 340
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RAW SEQUENCE LISTING PATENT APPLICATION US/09/849,980A

DATE: 11/10/2001 TIME: 01:51:12

```
93
       (2) INFORMATION FOR SEQ ID NO:2:
       (i) SEQUENCE CHARACTERISTICS:
  94
  95
        (A) LENGTH: F1258 base pairs
  96
        (B) TYPE: nucleic acid
  97
        (C) STRANDEDNESS: double
        (D) TOPOLOGY & linear
  98
  99
       (ii) MOLECULE TYPE: cDNA to mRNA
 100
      (vi) ORIGINAL SOURCE:
 101
        (A) ORGANISM: Homo sapiens
        (B) TISSUE TYPE: fat tissue
 102
 103
       (ix) FEATURE:
        (A) NAME/KEY: exon
 104
 105
        (B) LOCATION: F173..1198
 106
       (C) IDENTIFICATION METHOD: by experiment
       (C) IDENTIFICATION METHOD: by experiment
 107
 108
       (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2:
                                                          wropped - see ervor summony
Sheet, item 1
109
      GGCTCTGGAC TGGGGACACA GGGATAGCTG AGCCCCAGCT
 110
111
      GGGGTGGAA GCTGAGCCAG
                               60
      GGACAGTCAC GGAGGAACAA GATCAAGATG CGCTGTAACT
112
113
      GAGAAGCCCC CAAGGCGGAG 120
114
      GCTGAGAATC AGAGACATTT CAGCAGACAT CTACAAATCT
115
      GAAAGACAAA AC ATG GTT 178
116
                                                                   Met Val
117
                                                                     1
118
      CAA GCA TCC GGG CAC AGG CGG TCC ACC CGT GGC TCC AAA
119
      ATG GTC TCC
                   226
120
      Gln Ala Ser Gly His Arg Arg Ser Thr Arg Gly Ser Lys Met Val Ser
121
122
      TGG TCC GTG ATA GCA AAG ATC CAG GAA ATA CTG CAG AGG
123
      AAG ATG GTG
                     274
124
      Trp Ser Val Ile Ala Lys Ile Gln Glu Ile Leu Gln Arg Lys Met Val
125
                                25
      CGA GAG TTC CTG GCC GAG TTC ATG AGC ACA TAT GTC ATG
126
127
      ATG GTA TTC
                     322
128
      Arg Glu Phe Leu Ala Glu Phe Met Ser Thr Tyr Val Met Met Val Phe
129
                           40
      GGC CTT GGT TCC GTG GCC CAT ATG GTT CTA AAT AAA AAA
130
131
      TAT GGG AGC
                     370
      Gly Leu Gly Ser Val Ala His Met Val Leu Asn Lys Lys Tyr Gly Ser
132
133
                       55
134
      TAC CTT GGT GTC AAC TTG GGT TTT GGC TTC GGA GTC ACC
135
     ATG GGA GTG
                     418
136
     Tyr Leu Gly Val Asn Leu Gly Phe Gly Phe Gly Val Thr Met Gly Val
137
     CAC GTG GCA GGC CGC ATC TCT GGA GCC CAC ATG AAC GCA
138
139
     GCT GTG ACC
                     466
140
     His Val Ala Gly Arg Ile Ser Gly Ala His Met Asn Ala Ala Val Thr
141
               85
142
     TTT GCT AAC TGT GCG CTG GGC CGC GTG CCC TGG AGG AAG
143
     TTT CCG GTC
                     514
144
     Phe Ala Asn Cys Ala Leu Gly Arg Val Pro Trp Arg Lys Phe Pro Val
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RAW SEQUENCE LISTING PATENT APPLICATION US/09/849,980A

DATE: 11/10/2001 TIME: 01:51:13

INPUT SET: S36663.raw

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145
               100
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                                                      110
           TAT GTG CTG GGG CAG TTC CTG GGC TCC TTC CTG GCG GCT
      146
      147
           GCC ACC ATC 562
           Tyr Val Leu Gly Gln Phe Leu Gly Ser Phe Leu Ala Ala Ala Thr Ile
      148
      149
                              120
                                                  125
           TAC AGT CTC TTC TAC ACG GCC ATT CTC CAC TTT TCG GGT
      150
      151
           GGA CAG CTG 610
      152
           Tyr Ser Leu Phe Tyr Thr Ala Ile Leu His Phe Ser Gly Gly Gln Leu
      153
                         135
          ATG GTG ACC GGT CCC GTC GCT ACA GCT GGC ATT TTT GCC
      154
      155
           ACC TAC CTT 658
      156
           Met Val Thr Gly Pro Val Ala Thr Ala Gly Ile Phe Ala Thr Tyr Leu
      157
                      150
                                          155
      158
           CCT GAT CAC ATG ACA TTG TGG CGG GGC TTC CTG AAT GAG
      159
           GCG TGG CTG 706
     160
           Pro Asp His Met Thr Leu Trp Arg Gly Phe Leu Asn Glu Ala Trp Leu
      161
                 165
                                     170
           ACC GGG ATG CTC CAG CTG TGT CTC TTC GCC ATC ACG GAC
      162
      163
           CAG GAG AAC 754
           Thr Gly Met Leu Gln Leu Cys Leu Phe Ala Thr Thr Asp Gln Glu Asn
      164
      165
              180
                                 185
           AAC CCA GCA CTG CCA GGA ACA GAG GCG CTG GTG ATA
      166
     167
           GGC ATC CTC GTG 802
-->
     168
           Asn Pro Ala Leu Pro Gly Thr Glu Ala Leu Val Ile Gly Ile Leu Val
     169
                             200
     170
           GTC ATC ATC GGG GTG TCC CTT GGC ATG AAC ACA GGA TAT
     171
           GCC ATC AAC 850
-->
     172
           Val Ile Ile Gly Val Ser Leu Gly Met Asn Thr Gly Tyr Ala Ile Asn
     173
                          215
                                             220
     174
          CCG TCC CGG GAC CTG CCC CGC CGC ATC TTC ACC TTC ATT
     175
          GCT GGT TGG 898
     176
           Pro Ser Arg Asp Leu Pro Pro Arg Ile Phe Thr Phe Ile Ala Gly Trp
     177
                    230
                                         235
          GGC AAA CAG GTC TTC AGC AAT GGG GAG AAC TGG TGG
     178
     179
          TGG GTG CCA GTG 946
     180
          Gly Lys Gln Val Phe Ser Asn Gly Glu Asn Trp Trp Trp Val Pro Val
     181
              245
                                 250
     182
          GTG GCA CCA CTT CTG GGT GCC TAT CTA GGT GGC ATC ATC
     183
          TAC CTG GTC 994
          Val Ala Pro Leu Leu Gly Ala Tyr Leu Gly Gly Ile Ile Tyr Leu Val
     184
     185
           260
                                 265
     186
          TTC ATT GGC TCC ACC ATC CCA CGG GAG CCC CTG AAA TTG
     187
          GAG GAT TCT 1042
          Phe Ile Gly Ser Thr Ile Pro Arg Glu Pro Leu Lys Leu Glu Asp Ser
     188
     189
                          280
                                                285
     190
          GTG GCG TAT GAA GAC CAC GGG ATA ACC GTA TTG CCC AAG
     191
          ATG GGA TCT 1090
          Val Ala Tyr Glu Asp His Gly Ile Thr Val Leu Pro Lys Met Gly Ser
     192
     193
                        295
                                             300
         CAT GAA CCC ACG ATC TCT CCC CTC ACC CCC GTC TCT GTG AGC CCT GCC 1138
     194
     195
   196
          His Glu Pro Thr Ile Ser Pro Leu Thr Pro Val Ser Val Ser Pro Ala
     197
                            . 315
                     310
```

Some

RAW SEQUENCE LISTING PATENT APPLICATION US/09/849,980A

DATE: 11/10/2001 TIME: 01:51:13

>	198 199	AAC AGA TCT TCA GTC CAC CCT GCC CCA CCC TTA CAT GAA TCC ATG GCC 1186	536663.raw
	200 201	Asn Arg Ser Ser Val His Pro Ala Pro Pro Leu His Glu Ser Met Ala	
	202	325 330 335 CTA GAG CAC TTC TAAGCAGAGA TTATTTGTGA TCCCATCCAT	Some
>	203	TCCCCAATAA 1238	
	204	Leu Glu His Phe	}
	205	340	
	206	AGCAAGGCTT GTCCGACAAA	1258
	207		1230

SEQUENCE VERIFICATION REPORT PATENT APPLICATION US/09/849,980A

DATE: 11/10/2001 TIME: 01:51:13

Line	Error	Original Text
22	Wrong application Serial Number	(A) APPLICATION NUMBER: 09/381,810
24	Wrong Classification	(C) CLASSIFICATION: 435
41	Length must be an Integer	(A) LENGTHF342 amino acids
41	Entered (0) and Calc. Seq. Length (342) differ	(A) LENGTHF342 amino acids
43	Wrong or Missing Sequence Topology	(D) TOPOLOGYF linear
46	Wrong or Missing Sequence Topology	(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1:
95	Length must be an Integer	(A) LENGTHF1258 base pairs
95	Entered (0) and Calc. Seq. Length (283) differ	(A) LENGTHF1258 base pairs
98	Wrong or Missing Sequence Topology	(D) TOPOLOGYF linear
108	Wrong or Missing Sequence Topology	(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2:
-111	# of Sequences for line conflicts w/ running total	GGGGTGGAA GCTGAGCCAG 60
113	# of Sequences for line conflicts w/ running total	GAGAAGCCCC CAAGGCGGAG 120
115	# of Sequences for line conflicts w/ running total	GAAAGACAAA AC ATG GTT 178
119	# of Sequences for line conflicts w/ running total	ATG GTC TCC 226
123	# of Sequences for line conflicts w/ running total	AAG ATG GTG 274
127	# of Sequences for line conflicts w/ running total	ATG GTA TTC 322
131	# of Sequences for line conflicts w/ running total	TAT GGG AGC 370
135	# of Sequences for line conflicts w/ running total	ATG GGA GTG 418
139	# of Sequences for line conflicts w/ running total	GCT GTG ACC 466
143	# of Sequences for line conflicts w/ running total	TTT CCG GTC 514
147	# of Sequences for line conflicts w/ running total	GCC ACC ATC 562
151	# of Sequences for line conflicts w/ running total	GGA CAG CTG 610
155	# of Sequences for line conflicts w/ running total	ACC TAC CTT 658
159	# of Sequences for line conflicts w/ running total	GCG TGG CTG 706
163	# of Sequences for line conflicts w/ running total	CAG GAG AAC 754
167	# of Sequences for line conflicts w/ running total	GGC ATC CTC GTG 802
171	# of Sequences for line conflicts w/ running total	GCC ATC AAC 850
175	# of Sequences for line conflicts w/ running total	GCT GGT TGG 898
179	# of Sequences for line conflicts w/ running total	TGG GTG CCA GTG 946
183	# of Sequences for line conflicts w/ running total	TAC CTG GTC 994
187	# of Sequences for line conflicts w/ running total	GAG GAT TCT 1042
191	# of Sequences for line conflicts w/ running total	ATG GGA TCT 1090
195	# of Sequences for line conflicts w/ running total	AGC CCT GCC 1138
199	# of Sequences for line conflicts w/ running total	TCC ATG GCC 1186
203	# of Sequences for line conflicts w/ running total	TCCCCAATAA 1238

SEQUENCE CORRECTION REPORT PATENT APPLICATION US/09/849,980A

DATE: 11/10/2001 TIME: 01:51:13

Line	Original Text	Corrected Text
3 21 25 29 36 44 93 105	(1) General Information (vi) CURRENT APPLICATION DATE: (vii) PRIOR APPLICATION DATA (D) FILILNG DATE: 28-MAR-1997 (B) FAX: (202)293-6229 (ii) MOLECULE TYPEF peptide (2) INFORMATION FOR SEQ ID NoF2 (B) LOCATIONF1731198	(1) GENERAL INFORMATION: (vi) CURRENT APPLICATION DATA: (vii) PRIOR APPLICATION DATA: (D) FILING DATE: 28-MAR-1997 (B) TELEFAX: (202)293-6229 (ii) MOLECULE TYPE:F peptide (2) INFORMATION FOR SEQ ID NO:2: (B) LOCATION:F1731198